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- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)*
- *of inventorship (Rule 4.17(iv)) for US only*

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(54) Title: PROCESS FOR INCREASING THE SELECTIVITY OF THE HYDROGENATION OF 4,4'-DIAMINODIPHENYL-METHANE TO 4,4'-DIAMINODICYCLOHEXYLMETHANE IN THE PRESENCE OF AN N-ALKYL-4,4'-DIAMINODIPHENYLMETHANE

(57) Abstract: The invention relates to a process for increasing the selectivity of the hydrogenation of 4,4'-diaminodiphenylmethane (4,4'-MDA) to diaminodicyclohexylmethane (4,4'-HMDA) by catalytic hydrogenation of a mixture containing 4,4'-MDA as the main component and its mono-N-methyl derivative as a secondary component. According to the invention, the hydrogenation is terminated before a conversion of 4,4'-MDA to 4,4'-HMDA of 99% is achieved. Under these conditions, a substantially smaller proportion of the N-methyl-4,4'-MDA is hydrogenated to N-methyl-4,4'-HMDA.

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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

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C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0 392 435 A (AIR PROD & CHEM) 17 October 1990 (1990-10-17) cited in the application page 8 -page 13 ---	1
A	US 5 360 934 A (VEDAGE GAMINI A ET AL) 1 November 1994 (1994-11-01) cited in the application claims 1-19; example 1; tables 1-3 ---	1
A	EP 0 476 359 A (BAYER AG) 25 March 1992 (1992-03-25) claims 1-10; examples 1-3 ---	1
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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